

REMARKS

Claims 1-37 are pending in the application. Claims 1-26 and 37 are rejected. Claims 27-36 are withdrawn from consideration. Applicants have amended claims 16, 17, 23 and 24. Claims 27-37, which were withdrawn from consideration on the basis of a restriction requirement, have been cancelled. All rights under 35 U.S.C. § 121 are preserved.

Claim Rejections - 35 U.S.C. § 101

Claims 16, 17, 23 and 24 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. This rejection is traversed for at least the following reasons.

The Examiner notes that claims 16, 17, 23 and 24 are directed to a “program” and fail to claim the program recorded on an appropriate computer readable medium. Applicants have amended these claims in order to properly claim a program product.

Claim Rejections - 35 U.S.C. § 102

Claims 1-26 and 37 are rejected under 35 U.S.C. § 102(b) as being anticipated by Addink (6,042,477). This rejection is traversed for at least the following reasons.

Claim 1-13

Independent claim 1 is directed to a spatial position sharing system comprising a first device and a second device, where the first device has a “information transmission means” and the second device has a “information receiving means.” The first device further comprises “current position information generating means” and “predicted future position information generation means.” The “information transmission means” sequentially transmits both (1) the generated current position information and (2) predicted future position information. Two distinct categories of information are generated and transmitted. This same pair of distinct types of information is received at the second device by the “information receiving means”.

As would be understood by one skilled in the art based on conventional definitions of the applied terminology, and the reading of the present specification, especially with regard to the block diagram of client 16 as illustrated in Fig. 6, real time vehicle data including current

position, current attitude and current speed factors for each vehicle object being managed by the client 16 is stored in a database 64.

A client information update section 70 is included in the client 16 for generating real time vehicle data for the player car in a player car operation mode and generates real time vehicle data, which is current position data, for the player car, as explained at pages 34 and 35 of the original specification.

A separate position predicting section 78, as explained at pages 38 and 39 of the original specification, generates “predicted future position information, namely real time vehicle data that is “likely to have been generated by the client information update section 70.” This predicted future position information is calculated at the client 16, based on real time vehicle data, operation signals input from an operation unit 96 (representing accelerator opening amount, handle operating angle, break depression angle, etc., space data and moving object data etc.). The position predicting sections 78 stores the predicted future position information for the self-managed car and the time for that position information in a transmit buffer 86. The transmitter 92 will transmit a pairing of the current position information and the current time stored in the transmit buffer 86 together with a pairing of the predicted future position information and the future time, as explained at page 39 of the original specification.

The feature of the “predicted future position information generating means” in generating predicted future position information and an information transmission means that transmits such predicted future position information, especially in combination with a separate category of current position information, is not found in the prior art.

Further, within a claimed second device, there is no “estimated current position information generating means” that generates estimated current position information based on the received (1) current position information and (2) predicted future position information.

Addink

The Examiner refers to the teachings in Addink as anticipating the invention of claim 1, with particular reference to the teachings at col. 4, lines 37-65. There, the reference teaches the use of plural personal computers (53, 55) where a virtual airplane controlled by PC 53 is a target

of PC 55 and the airplane controlled by PC 53 is a target of PC 53. The game code running on each PC causes an exchange of target information packets periodically. The packets identify only current information, namely the sending airplane and at least position and motion information about the airplane at the time the packet is sent. The position information is location (x, y, z) in virtual space and the motion information is a velocity vector (v_x, v_y, v_z) and an acceleration vector (a_x, a_y, a_z) .

Again, the information concerning position, velocity and acceleration are all current measurements. None of the generated information reflects any predicted future measurement. Thus, given the clear language of the claim, based on conventional terminology and the supporting teachings in the original specification, the Addink reference has is no “predicted future position information” that is generated at one of the two PCs (53, 55) and transmitted to the other of the PCs (53, 55). Given this fact, supporting a clear absence of relevant structure in the applied prior art, the claim cannot be anticipated.

Claims 14 and 15

Claims 14 and 15 are directed are directed to a “spatial position sharing device” where the device of claim 14 includes a “predicted future position information generating means” as well as a “current position information generating means.” The device further includes an information transmission means for sequentially transmitting both the generated current position and predicted future position information.

For the reasons given with regard to claim 1, Addink does not anticipate this structure. The reference has no teaching or suggestion of a structure that corresponds to a “predicted future position information generating means,” as recited in claim 14. Nothing in Addink concerns a predicted position.

With regard to claim 15, the device comprises an “information receiving means” that receives both “current position information” and “predicted future position information” that is generated in another device and sequentially transmitted from the other device. Further, the device includes a “estimated current position information generating means” that estimates a current position for an object in virtual space based on both “the received current position information and the predicted future position information.”

As explained with regard to claim 1, Addink does not include a teaching of such structure. Neither PC 53 nor PC 54 in Addink receives both current position information and predicted future position information as defined in the present application.

Claims 16 and 17

These claims have been amended to recite a program product with limitations corresponding to claims 14 and 15. Thus, these claims would be patentable for the reasons given with regard to claims 14 and 15.

Claims 18 and 19

Claim 18 is directed to a spatial position sharing method that comprises steps corresponding to the function of the system structure recited in claim 1. In particular, with regard to a first device there is a current position information generating step and a predicted future position information generating step, as well as an information transmission step for sequentially transmitting both the generated current position information and predicted future position information. In addition, the claim requires for a second device the function of receiving both current position information and predicted future position information from the first device coupled with an estimated current position information generating step for generating estimated current position information based on the received current position information and the predicted future position information. Thus, the claim would be patentable for the reasons given with regard to claim 1, namely the failure of Addink to teach any activity related to predicted future position information.

With regard to claim 19, which corresponds to the functions recited in claim 15, the claim would be patentable over Addink for the reasons given previously.

Claims 20-22

Claim 20-22 concern a data sharing system, where claim 20 concerns a system comprising a first device and a second device with the first device with limitations corresponding to those found in claim 1. Thus, this claim would be patentable for reasons given with regard to claim 1.

With regard to claim 21, the limitations are similar to those found in claim 15 and would be patentable over Addink for the reasons given previously.

With regard to claim 22, the data sharing system has limitations comparable to those in claim 16 and would be patentable for reasons given previously.

Claims 23-24

These claims have been redrafted to recite a computer program product which causes a computer to function in accordance with the structure recited in claims 21 and 22, respectively. Thus, these claims would be patentable for the reasons given with regard to claims 21 and 22.

Claims 25 and 26

Claim 25 concerns a data sharing method with respect to a first device and a second device, with limitations corresponding to those in claim 20. This claim would be patentable for reasons given with regard to claim 20.

Claim 26 is also directed to a data sharing method and includes steps corresponding to the function of the structure recited in claim 22. This claim would be patentable for the reasons given with regard to claim 22.

Claim 37

This claim has been cancelled as duplicative of amended claims 16, 17, 23 and 24.

On the basis of the foregoing arguments, all of the pending claims should be patentable. We look forward to your comments and instructions and any additional arguments or amendments that you may wish to provide in overcoming the rejections.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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